

Is Online Shopping More Sustainable?

With the advent of Internet and technologies to access it, online retailing and shopping has been made easier for everyone. Browsing through the list of online retailers like Amazon, eBay, TaoBao, Alibaba, and on and on, one must realize there are retailers for every kind of products. Even grocery that quickly perishes has its own specialized retailers such as FreshDirect and NetGrocer, with timely delivery guaranteed. Since the recent success of online retailing has been undeniable, there is increasingly more scrutiny on its environmental impacts.

For beginner, online retailers do not collect sales tax, which led to a loss of [23 billion](#) potential tax revenue. More importantly, online retailers, usually with more comprehensive catalogs, can easily drive physical stores, as well as family-owned stores or boutiques, out of business. Since many people believe that small businesses are much more sustainable than monopolizing titans, this situation is inherently undesirable.

If someone were to decide whether online shopping is sustainable or not, the bad news is that this subject matter probably has one of the more complex matrix of factors hidden beneath. Assuming everything factor is static and constant, it would be rather straightforward to conclude one van is more environmentally friendly than twenty cars, but almost everything is dynamic in reality because consumer behavior and each and every one of their shopping habits must be taken into account.

From the [freight dimension perspective](#), there are many big and small issues associated with delivery. The choice of transportation mode directly influences the sustainability aspect of online shopping. While freight trains prove to have the [lowest greenhouse gas emissions](#), it can be significantly more destructive to the environment during other phases than alternatives. For instance, the construction of railroads requires an enormous amount of energy to lay down a track, not to mention all the natural habitats along the way will be disturbed. Therefore, the true, environmental cost of freight must be carefully calculated through Life Cycle Assessments. Another inevitable delivery problem is the fragmented nature of online shopping. Consumers purchase different types of merchandise from different stores/warehouses during different times of the day. Goods will have to be delivered separately to the customers' doorsteps. This fragmentation issue is also an example of added complexity due to consumer behavior. On a smaller scale, delivery vans in cities are notorious for standing in non-parking lanes to add chaos to the already busy and crowded city streets.

If the online retail industry wants to become more sustainable, many system-level improvements must take place. For greatest efficiency in delivery, purpose-built distribution centers will have to be newly added to critically chosen locations. The packaging and delivery processes need to be much more innovative than they currently are. Inventory management will also differ greatly because distribution centers are likely to become geographically specialized to minimize inventory level, among many other reasons.

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Bibliography:

- Cullinane, S. (2009). From Bricks to Clicks: The Impact of Online Retailing on Transport and the Environment. *Transport Reviews*, 29(6), 759–776. doi:10.1080/01441640902796364

- Lubick, N. (2007). Environmental Costs of Shipping. *Environmental Science & Technology*, 41(20), 6880–6883. doi:10.1021/es072627o
- Kovtun, A. (2013, April 4). Online shopping not sustainable Tanked tax revenues hurt shops, businesses. . Retrieved , from <http://www.dailygamecock.com/article/2013/04/online-shopping-not-sustainable>